UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|---|---|---|---|
| 09/960,204 | 09/21/2001 | Gintaras A. Vaisnys | 10334/6 | 5152 |

7590 08/27/2004

James W. Paul, Esq.
FULWIDER PATTON LEE & UTECHT, LLP
6060 Center Drive, 10th Floor
LOS ANGELES, CA 90045

| EXAMINER | |
|---|---|
| ALEJANDRO, RAYMOND | |

| ART UNIT | PAPER NUMBER |
|---|---|
| 1745 | |

DATE MAILED: 08/27/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 09/960,204 | VAISNYS ET AL. | |
| | Examiner | Art Unit | |
| | Raymond Alejandro | 1745 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *15 July 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-11 and 13* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-11 and 13* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *21 September 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

## DETAILED ACTION

### *Response to Amendment*

This communication is in response to the reply of 07/15/04. The applicants have only overcome one of the two double patenting rejections. Refer to the abovementioned amendment for specific details on applicant's rebuttal arguments. In addition, the instant claims are finally rejected over the same previously applied art as seen below and for the reasons of record:

### *Double Patenting*

1. *It is noted that applicants submitted a terminal disclaimer to obviate the two double patenting rejections set forth in the prior office action of 04/12/04. However, applicants incorrectly identified the patent number from which applicants are disclaiming the terminal part of the statutory term of any patent granted on the instant application. The terminal disclaimer of 07/15/04 incorrectly states patent number 6557102. Nevertheless, the assignee of said patent is not Defibtech LLC having a place of business in Chicago, IL. Further correction or clarification is required in order to overcome this double patenting issue.*

2. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

3. Claims 1-3 and 7 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-3 and 8-9 of U.S. Patent No. 6577102. Although the conflicting claims are not identical, they are not patentably distinct from each other because of the following reasons:

The US'102 patent claims the following (CLAIMS 1-3 and 8-9):

**1**. A power supply system for an external defibrillator having a first power supply unit for delivering energy to a patient, and a second power supply unit to power non-energy delivery functions of the external defibrillator, the power supply system comprising:

a first power supply connected to the external defibrillator, wherein the first power supply powers at least a main unit circuit of the external defibrillator to deliver energy to a patient during a first operating mode of the external defibrillator; and

a second power supply, wherein the second power supply powers at least one non-energy delivery circuit during an alternate operating mode, exclusive of a state of the first power supply.

**2**. The power supply system of claim **1** wherein the non-energy delivery circuit comprises circuitry reporting a status of the external defibrillator.

**3**. The power supply system of claim **1** wherein the non-energy delivery circuit comprises circuitry sounding an enunciator.

**8**. The power supply system of claim **1** wherein the non-energy delivery circuit comprises at least one visual indicator.

**9**. The battery system of claim **8** wherein the visual indicator comprises a light emitting diode.

*In this case, since claim 2 positively recites the presence of a circuitry reporting the status of the external defibrillator, the claim language has been construed as having an indicator to indicate the status of at least a portion of at least the external defibrillator. Thus, the limitation of claim 2 corresponds to an obvious variation of a battery packing having an indicator as instantly claimed in applicants' invention.*

*Furthermore, the application claims are broader or more generic than the patent claims, thus, the application claims are anticipated by the patent claims. Accordingly, a broad limitation is anticipated by a narrow limitation which lies within the broad limitation. In re Goodman.*

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 1-4, 6-7, 9-11 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Benvegar et al 5721482 in view of Adams et al 5372605.

The instant application is directed to a battery pack wherein the disclosed inventive concept comprises the indicator feature.

With respect to claim 1:

Benvegar et al disclose an intelligent battery having an advance low battery warning for a battery powered device (ABSTRACT/COL 2, lines 27-45) wherein the battery comprises a battery suitable for powering a battery powered device and a charge monitor circuit. The battery powered device is a defibrillator device (ABSTRACT/COL 18-24). It is disclosed that the charge monitor IC 32 resides on a printed circuit board mounted inside a removable battery pack 12 that is used with the portable defibrillator (COL 4, lines 10-13). The battery powered device is a defibrillator device (ABSTRACT) as well as that the battery powered device is used to treat patients (COL 1, lines 20-24).

Benvegar et al disclose that the high voltage charger circuit 14 contains a large capacitor that is charged by battery pack 12, thereby arming the defibrillator. As will be appreciated by those skilled in the art, the large charge stored on this capacitor is used to shock the patient (COL 3, lines 30-35). *Thus, a second power supply is provided to power at least one-non energy delivery circuit of the battery pack and the external defibrillator.* **Figure 2** above illustrates a diagram of the battery pack 12 wherein the battery pack 12 has a plurality of battery cells 30 (*power supply*) connected in series across the terminals of the battery pack 12 (COL 3, line 65 to COL 4, line 10). *Thus, it is also contended that at least one of the plurality of battery cells can serve as the second power supply as not specific structure of the second power supplied is specified.*

The charge monitor circuit continuously measures the amount of electrical charge input and output from the battery (ABSTRACT/COL 2, lines 27-45). When the amount of charge remaining in the battery goes below a threshold amount, an advance low battery warning is generated (ABSTRACT/ COL 2, lines 27-45). It is disclosed that the low battery warning occurs

independently of the output voltage of the battery such that an advance low battery warning is provided (ABSTRACT/ COL 2, lines 27-45).

**Figure 2** below illustrates a diagram of the battery pack 12 wherein the battery pack 12 has a plurality of battery cells 30 (*power supply*) connected in series across the terminals of the battery pack 12 (COL 3, line 65 to COL 4, line 10). Also contained within the battery pack 12 is the charge monitor IC 32 which monitors and maintains a cumulative sum of the electrical current as it goes in and out of the battery (i.e. battery cells 30). The amount of charge input into the battery and output from the battery is continuously measured by the charge monitor IC 32 (COL 3, line 65 to COL 4, line 10). It is disclosed that the charge monitor IC 32 resides on a printed circuit board mounted inside a removable battery pack 12 that is used with the portable defibrillator (COL 4, lines 10-13).

It is disclosed that the battery pack 12 (**See *Figure 2 below***) includes a button 34 and an LED bar graph 36 (it is noted that LED stands for light emitting diode). When the button 34 is pressed, charge monitor IC 32 activates LED bar graph 36 which indicates the total charge remaining in the battery cells 30 (COL 4, lines 39-43).

It is disclosed that the charge monitor IC 32 reports information, including the battery state of charge, the battery's temperature and the charge monitor's status including a plurality of calibration and testing flags to the defibrillator/monitor instrument (COL 4, lines 18-23).

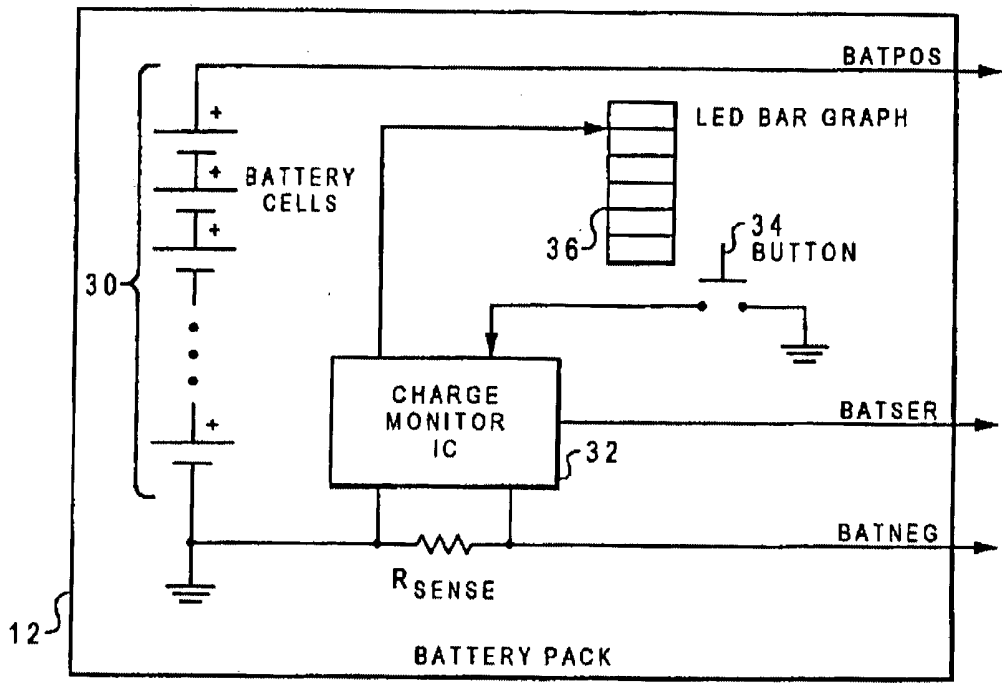


*Fig. 2*

With respect to claims 2-4:

It is disclosed that the battery pack 12 includes a button 34 and an LED bar graph 36 (it is noted that LED stands for light emitting diode). When the button 34 is pressed, charge monitor IC 32 activates LED bar graph 36 which indicates the total charge remaining in the battery cells 30 (COL 4, lines 39-43). *Thus, since the charge monitor IC 32 activates the LED bar graph 36, the LED bar graph 36 (the light emitting diode) flashes to indicate the battery cells are operating properly.*

As for claims 6-7, 10-11:

Benvegar et al disclosed that the control circuit is contained within and formed as an integral part of the battery pack, thus, providing an intelligent battery that produces an advance

low battery warning for a battery powered defibrillator (COL 7, lines 50-55). It is disclosed that the control circuit 20 makes a determination of when the amount of charge remaining in the battery goes below a threshold amount, this threshold amount reflects the desired amount of charge to be remaining in a battery. When it is determined that the charge in the battery pack has reached this threshold amount, control circuit 20 provides an advance low battery warning by indicating the low battery condition on display 24 (COL 3, lines 42-55). The control circuit 20 may produce an audio warning that is output by speaker 26. Control circuit 20 also monitors the voltage output of battery pack 12 and when the voltage output reaches a minimum threshold limit, control circuit 20 provides an additional audio and visual warning via speaker 26 and display 24, called a battery shutdown warning which indicates the battery shutdown is imminent (COL 3, lines 55-63).

**Figure 1 below** *shows control circuit feature including the controller, the audio indicator and the enunciator.*

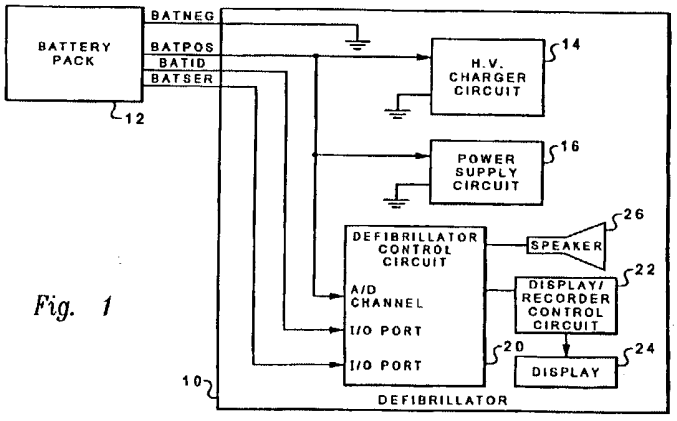


*Fig. 1*

With respect to claim 9:

It is disclosed that the battery pack 12 includes a button 34 and an LED bar graph 36 (it is noted that LED stands for light emitting diode). When the button 34 is pressed, charge monitor

IC 32 activates LED bar graph 36 which indicates the total charge remaining in the battery cells 30 (COL 4, lines 39-43). *Thus, the indicator indicates a state of the power supply.*

With respect to claim 13:

It is taught that the low battery warning occurs independently of the output voltage of the battery such that an advance low battery warning is provided (ABSTRACT/ COL 2, lines 27-45).

Benvegar et al disclose a battery power source according to the foregoing aspects. However, Benvegar et al do not expressly disclose the specific first and second power supply associated to the main and alternate operating mode, respectively.

Adams et al disclose a dual battery system for a defibrillator (TITLE) using two separate battery power sources, each having optimized characteristics for monitoring functions and for output energy delivery functions, respectively (ABSTRACT/ COL 2, line 55 to COL 3, line 4/ CLAIM 1). The monitoring functions are supplied electrical power by a first battery source; the output energy delivery functions are supplied by a separate second battery source. The first battery source provides electrical power only to the monitoring functions of the defibrillator (*the non-energy delivery circuit*) and the second battery source provides all of the electrical power for the output energy delivery functions (*the energy delivery circuit*) (ABSTRACT/ COL 2, line 55 to COL 3, line 4/ CLAIM 1).

[57] **ABSTRACT**

shelf life. The first battery source provides electrical power only to the monitoring functions of the implantable cardioverter defibrillator, and the second battery source provides all of the electrical power for the output energy delivery functions.

FIG. 2 illustrates a block diagram of the dual battery system 30 for an implantable defibrillator of a preferred embodiment of the present invention. A battery 32 of appropriate voltage and physical size connects to and powers a monitoring circuit 34 only. Another battery 36 of appropriate voltage and physical size connects to and powers the inverter/output circuit 38 only. The moni-

the present invention where the batteries are rechargeable. A battery 52 of appropriate voltage and physical size connects to and powers a monitoring circuit 54 only. Another battery 60, which is rechargeable and of appropriate voltage and physical size connects to and powers the inverter/output circuit 62 only. Charging of

therapy to two or more implanted electrodes, the improved power system comprising:

first battery means for providing electrical power primarily to the monitoring means;

second battery means for providing substantially all of its electrical power to the output means; and

backup means for allowing the second battery means to provide electrical power to the monitoring means in the event that the first battery means can no longer provide electrical power to the monitoring means.

Adams et al disclose that the first battery source provides electrical power only to the monitoring functions of the implantable cardioverter defibrillator, and the second battery source provides all of the electrical power for the output energy delivery functions (ABSTRACT). Adams et al disclose that a battery 32 or 52 connects to and powers a monitoring circuit 34 or 54 only, respectively. Another battery 36 or 60 connects to and powers the inverter/output circuit 38 or 62 only, respectively (COL 4, lines 54-65/ COL 5, lines 1-12). *Thus, Adams et al clearly envisions having two different and separate power sources for disparate functions.*

In view of these disclosures, it would have been obvious to one skilled in the art at the time the invention was made to employ the specific first and second power supply associated to the main and alternate operating mode of Adams et al in the battery pack of Benvegar et al as Adams et al teaches that with the improved dual battery system configuration the minimum expected monitoring life of an implantable cardioverter defibrillator is independent of the amount of electrical pulse therapy delivered by the device, such as the number of cardioversion/ defribrillation countershock or the amount of pacing. As a result, the end of the minimum useable lifespan of the first battery source is highly predictable based on steady state current

drain calculations. The lifespan of the second source battery is also amenable to calculation based upon the number and amount of energy levels of previously delivered electrical pulse therapies. Accordingly, while a single battery system has proved workable for implantable defibrillators, the use of a single battery system necessarily involves a compromise between the ideal power supply which would otherwise be used for the various types of circuitry within the defibrillator. Hence, it is desirable to provide for an improved dual battery power system for a defibrillator which avoids the need for the compromise required of single battery systems.

7. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Benvegar et al 5721482 in view of Adams et al 5372605 as applied to claim 3 above, and further in view of Kurle et al 6072299.

Benvegar et al is applied, argued and incorporated herein for the reasons above. However, Benvegar et al do not expressly disclose the light emitting diode flashes to indicate a fault condition.

Kurle et al disclose a smart battery (ABSTRACT) that self-monitors and indicates use conditions (ABSTRACT). Kurle et al disclose that a relative state of charge that includes a reserve factor is displayed using the LED (*the light emitting diode*) 76a-d wherein one LED flashes if the relative state of charge is less than or equal to 0 % (COL 14, lines 40-45). It is also disclosed that if any identified flag has been set, then the battery 22 displays the conditioning required pattern wherein the conditioning required display pattern alternates flashing the first and third LED (COL 14, lines 25-31).

Kurle et al disclose the battery pack is useful in portable medical devices such as a portable defibrillator unit (COL 1, lines 22-28) wherein the battery pack provides the power to the defibrillator (COL 1, lines 30-45).

In view of the above, it would have been obvious to one skilled in the art at the time the invention was made to incorporate the light emitting diode flashes to indicate a fault condition of Kurle et al in the indicator of Benvegar et al and Adams et al because Kurle et al teach the light emitting diode indicator (LED) flashes if the relative state of charge is less than certain predetermined level. Accordingly, a flashing light emitting diode is suitable to identify, recognize and display battery conditions to a user. Thus, if any error and/or fault or failing condition is detected in the battery, the flashing-lighted LED (light emitting diode) display makes pertinent indication. As a result, it is obtained a battery that internally monitors its own operating condition, its own need for maintenance and its own useful life, and communicates this information to a user.

8. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Benvegar et al 5721482 in view of Adams et al 5372605 as applied to claim 1 above, and further in view of Olson et al 6366809.

Benvegar et al is applied, argued and incorporated herein for the reasons above. However, Benvegar et al do not expressly disclose the indicator communicates that the medical device has failed a self test per se.

Olson et al disclose a defibrillator battery with memory and status indication gauge (TITLE/ABSTRACT) wherein a daily self-test and a weekly self-test of the automated external

defibrillator (AED) 10 is performed during which the voltage level of battery cells 17 of battery pack 15 is checked; wherein processor 74 illuminates replace battery indicator 64 of status gauge indicator 60 and activates alarm 96 if faults are identified during daily self-test or weekly self-test (COL 6, lines 47-62).

In view of the above, it would have been obvious to one skilled in the art at the time the invention was made to incorporate the indicator communicates that the medical device has failed a self test of Olson et al in the indicator of Benvegar et al and Adams et al because Olson et al teach that the battery indicator is illuminated if fault conditions are identified during daily self-test and weekly self-test. Accordingly, the indicator will illuminate if a battery replacement is required. Therefore, the defibrillator battery and associated status indicator insures constant readiness of an automated external defibrillator for defibrillating a patient by preventing defibrillator failure due to an unknown reduced battery charge.

***Response to Arguments***

1. Applicant's arguments filed 07/15/04 have been fully considered but they are not persuasive.

2. The sole contention of applicants' arguments is based in the assertion that the prior art of record "*does not teach, disclose, or suggest a second power supply that is electrically isolated from a first power supply*". Nonetheless, this assertion is not sufficient to overcome the rejection because the prior art clearly teaches the following: the first battery source providing electrical power **only** to the monitoring functions of the implantable cardioverter defibrillator, and the second battery source providing all of the electrical power for the output energy delivery

functions (ABSTRACT). Adams et al also disclose that a battery 32 connects to and powers a monitoring circuit 34 **only**, respectively. Another battery 36 connects to and powers the inverter/output circuit 38 **only**, respectively (COL 4, lines 54-65). Adams et al also disclose that a battery 52 connects to and powers a monitoring circuit 54 **only**, respectively. Another battery 60 connects to and powers the inverter/output circuit 62 **only**, respectively (COL 4, lines 54-65/ COL 5, lines 1-12).*Thus, Adams et al clearly envisions having two different, separate and isolated power sources for disparate functions.*

[57] **ABSTRACT**

shelf life. The first battery source provides electrical power only to the monitoring functions of the implantable cardioverter defibrillator, and the second battery source provides all of the electrical power for the output energy delivery functions.

FIG. 2 illustrates a block diagram of the dual battery system 30 for an implantable defibrillator of a preferred embodiment of the present invention. A battery 32 of appropriate voltage and physical size connects to and powers a monitoring circuit 34 only. Another battery 36 of appropriate voltage and physical size connects to and powers the inverter/output circuit 38 only. The moni-

5

the present invention where the batteries are rechargeable. A battery 52 of appropriate voltage and physical size connects to and powers a monitoring circuit 54 only. Another battery 60, which is rechargeable and of appropriate voltage and physical size connects to and powers the inverter/output circuit 62 only. Charging of

therapy to two or more implanted electrodes, the improved power system comprising:
first battery means for providing electrical power primarily to the monitoring means;
second battery means for providing substantially all of its electrical power to the output means; and
backup means for allowing the second battery means to provide electrical power to the monitoring means in the event that the first battery means can no longer provide electrical power to the monitoring means.

*3.* With respect to applicants arguments that "*Adams et al teaches at column 3, lines 62-67, and in Claim 1, that the energy from the output power source battery (second battery 36) can be used to power the monitoring circuitry connected to and primarily powered by the first battery*

*32*", the examiner points out that such operation is conditioned to the event that the monitoring power source battery ceases to function, that is to say, only if the first battery means can no longer provide electrical power to the monitoring means. Accordingly, if the first battery source is always capable of providing sufficient power (at all times), both power sources of the prior art (i.e. the first battery means and the second battery means) will be electrically isolated as they two have disparate energy requiring functions. In addition, since the present claim language clearly recites that "*during the alternate operating mode, the second power supply being electrically isolated from the first power supply*", it simply limits the second power supply to be isolated from the first power supply only during such alternate operating mode. Hence, in the presently claimed invention such isolation function is partially conditioned to a particularly selected operating mode, and not to "a continuous operating mode" or "at all times", "continually" or "permanently" as apparently argued by the applicants; and/or in the event the first battery means can no longer provide electrical power to the monitoring means so as to have an opposite functional limitation when compared to the prior art. *In consequence, the combined prior art provides the necessary functional interrelationship to satisfy the claimed requirement at all times but in the event that the monitoring power source battery ceases to function (discharge).*

***Conclusion***

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Raymond Alejandro whose telephone number is (571) 272-1282. The examiner can normally be reached on Monday-Thursday (8:00 am - 6:30 pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick J. Ryan can be reached on (571) 272-1292. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Raymond Alejandro
Examiner
Art Unit 1745